

REMARKS

The Office Action dated July 12, 2006, has been received and carefully noted. The above amendments and the following remarks are being submitted as a full and complete response thereto. Claims 1-18 are pending in this application. By this Amendment, claims 1-2, 4-8 and 19 are amended. No new matter is being added. Reconsideration of the application is respectfully requested.

Applicants gratefully appreciate the indication that claims 5 and 13-14 are allowable.

The Office Action rejects claims 1, 6-10 and 15-16 under 35 U.S.C. §102(e) over Tomohiro (JP 2001-110946); claims 1, 11-12 and 17 under 35 U.S.C. §102(b) over Kawahara (U.S. Patent No. 6,518,501); claim 12 under 35 U.S.C. §102/103(a) over Kawahara; and claims 2-4 and 18 under 35 U.S.C. §103(a) over Tomohiro in view of Ono (U.S. Patent No. 7,034,441). The rejections are respectfully traversed.

In particular, none of the applied references, alone or in combination, disclose or suggest a surface acoustic wave device that includes a first substrate, a surface acoustic wave chip attached to the first substrate, and a second substrate that hermetically seals the surface acoustic wave chip, the first substrate comprising one of silicon and sapphire as a major component and a second substrate comprising silicon as a major component, the first and second substrate having joined surfaces processed by a surface activation process, an electric circuit being formed on a surface area of the second substrate other than their joining surfaces and facing the surface acoustic wave chip, the second substrate having second electrode pads electrically connected to first electrode pads formed on the surface acoustic wave chip, the surface acoustic wave

chip having a back surface attached to a surface of the first substrate by another surface activation process, the first and second electrode pads facing each other and being bonded so that the surface acoustic wave chip can be mechanically and electrically connected to the second substrate, as recited in independent claim 1. Support for these features can be found in the drawings at, for example, Figs. 12A and 12B and their accompanying descriptions in the specification.

Tomohiro teaches providing a SAW device and a manufacturing method wherein the waviness or deflection of a substrate sheet is suppressed and the deformation of a bump is stabilized with no degradation in productivity (Problem to be Solved). However, Tomohiro clearly teaches that the chip 6 is not attached to the substrate 8 via a surface activation process, as recited in independent claim 1. A closer observation of Tomohiro in Figure 1 in fact indicates that there is a gap between the SAW chip 6 and the second substrate 8 and, as such, the chip 6 and the substrate are not attached via a surface activation process, as recited in independent claim 1. The claimed surface acoustic wave device includes a first and a second substrate that are both processed by a surface activation process, and Tomohiro fails to disclose or suggest this feature. Accordingly, Tomohiro fails to disclose or suggest the features of independent claim 1.

Kawahara teaches an electronic part in which a surface acoustic wave device is packaged by using a resin (Abstract). However, Kawahara also fails to disclose or suggest that the surface acoustic wave device 2 is attached to a surface of the first substrate 1 via a surface activation process, and that the first and second substrate have joining surfaces processed by a surface activation process, as recited in independent claim 1. It is clear from a closer observation of Kawahara that the surface

acoustic wave device 2 is not attached to the first substrate 1 via a surface activation process. Accordingly, Kawahara fails to disclose or suggest the features of independent claim 1.

Ono teaches a surface mount crystal unit that includes a crystal blank, a planar mounting substrate made of silicon and a cover having a shape with a recess and made of glass containing ions having high mobility (Abstract). However, Ono fails to cure the deficiencies in Tomohiro in disclosing or rendering obvious the features of independent claim 1. Furthermore, Ono is not prior art against the above-identified application because Ono's U.S. filing date is November 12, 2003, which is posterior to the priority date of the above-identified application, which is April 8, 2003, drawn from Japanese Patent Application No. 2003-104593, and as claimed in the Claim for Priority filed on March 30, 2004. Accordingly, Ono cannot be used as prior art against the above-identified application.

For at least these reasons, none of the applied references, alone or in combination, disclose or suggest the features of independent claim 1. Thus, independent claim 1, and its dependent claims, are patentable over any combination of the applied references. Accordingly, withdrawal of the rejections of the claims under 35 U.S.C. § 102(e), 35 U.S.C. § 102/103(a) and 35 U.S.C. § 103(a) is respectfully requested.

Applicants respectfully submit that this application is in condition for allowance and such action is earnestly solicited. If the Examiner believes that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone

number listed below to schedule a personal or telephone interview to discuss any remaining issues.

Please charge any fee deficiency or credit any overpayment with respect to this paper to Deposit Account Number 01-2300, referencing Attorney Docket Number 025720-00030.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'Tarik M. Nabi', with a horizontal line extending to the right.

Tarik M. Nabi
Registration Number 55,478

Customer Number 004372
ARENT FOX PLLC
1050 Connecticut Avenue, NW, Suite 400
Washington, DC 20036-5339
Telephone: 202-857-6000
Fax: 202-638-4810

TMN/elz